

LED SURFACE LIGHT EMISSION DEVICE

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- **european:**

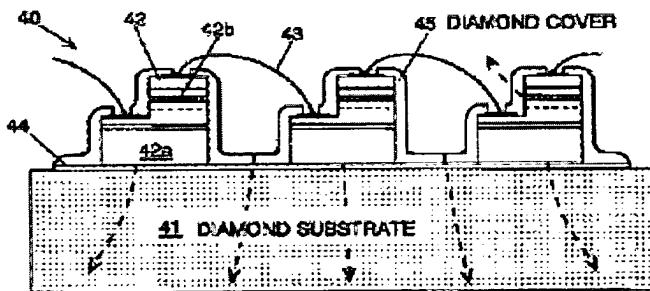
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Abstract of JP2002329896

PROBLEM TO BE SOLVED: To provide an LED light-emitting device capable of stably emitting a large quantity of light at all times while the heat generated at the LED is appropriately released. **SOLUTION:** A light-emitting diode chip 42 is placed on a diamond substrate 41. A similar effect can be obtained by covering the upper part of the substrate 41 with a diamond cover 45 instead of forming the substrate 41 with diamond. Diamond has a very good heat conductivity while it is an insulator of electricity. So, even if the large LED chip 42 is placed or multiple LED chips 42 are provided in high density, the heat generated therefrom is dissipated from the substrate 41 or from the diamond cover 45 covering the upper part of it, preventing the temperature of the LED chip 42 from rising excessively. Thus, the light emission efficiency of the LED chip 42 is kept well while secular degradation of the LED chip 42 is prevented.



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